

WHAT IS CLAIMED IS:

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2 1. A method of evaluating a protein kinase C (PKC) activity in a tissue other than
3 monocytes of a subject, the method comprising:
4 evaluating the level of the PKC activity in monocytes of the subject,
5 the level of PKC activity in the monocytes being correlated to the level of PKC
6 activity in a tissue other than monocytes.

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8 2. The method of claim 1, wherein the PKC activity is PKC β activity.

9 3. The method of claim 1, wherein the tissue is cardiovascular tissue.

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11 4. The method of claim 3, wherein the cardiovascular tissue is retinal, kidney or aorta
12 vascular tissue or heart.

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14 5. The method of claim 1, wherein the subject is a human.

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16 6. The method of claim 1, wherein the subject is an experimental animal.

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18 7. A method of determining if a subject is at risk for or has a PKC related disorder, the
19 method comprising:

20 evaluating the level of PKC activity in monocytes of the subject;
21 optionally comparing the level of the PKC activity in monocytes of the subject
22 with a standard,

23 thereby determining if the subject has a symptom of a PKC related disorder.

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25 8. The method of claim 7, wherein the PKC activity is PKC β activity.

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27 9. The method of claim 7, wherein the disorder is diabetes.

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29 10. The method of claim 7, wherein the disorder is diabetic retinopathy.

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32 11. The method of claim 7, wherein the disorder is diabetic nephropathy.

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34 12. The method of claim 7, wherein the disorder is a cardiovascular disorder.

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36 13. The method of claim 7, wherein the subject is a human.

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38 14. The method of claim 7, wherein the subject is an experimental animal.

39 *Subj A/H
40 Cont'd*

41 15. The method of claim 7, wherein the disorder is selected from the group consisting of:
42 diabetes mellitus, Type I diabetes, Type II diabetes, diabetic retinopathy, proliferative diabetic
43 retinopathy, non-proliferative diabetic retinopathy, diabetic nephropathy, microalbuminuria,
44 proteinuria, renal failure, hypertension, atherosclerosis, coronary artery spasm, congestive heart
failure, coronary artery disease, valvular disease, arrhythmias, and cardiomyopathy.

45

46 16. A method of evaluating a subject for the extent, stage, or severity, of a PKC related
47 disorder comprising:

48 evaluating the level of PKC activity in monocytes of the subject; and
49 optionally comparing the level of the PKC activity in monocytes of the subject
50 with a standard,

51 the level of PKC activity being correlated with the extent, stage, or severity, of the
52 PKC related disorder.

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54 17. The method of claim 16, wherein the disorder is diabetes.

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56 18. The method of claim 16, wherein the disorder is a cardiovascular disorder.

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58 19. The method of claim 16, wherein the disorder is diabetes mellitus, Type I diabetes,
59 Type II diabetes, diabetic retinopathy, proliferative diabetic retinopathy, non-proliferative
60 diabetic retinopathy, diabetic nephropathy, microalbuminuria, proteinuria, renal failure,

61 hypertension, atherosclerosis, coronary artery spasm, congestive heart failure, coronary artery
62 disease, valvular disease, arrhythmias, or cardiomyopathy.

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64 20. The method of claim 16, wherein the PKC activity is PKC β activity.

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66 21. The method of claim 16, wherein the subject is a human.

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68 22. The method of claim 16, wherein the subject is an experimental animal.

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70 23. A method of evaluating the effect of a treatment for a PKC related disorder on a
71 subject comprising:

72 administering a treatment for a PKC related disorder to a subject; and

73 evaluating the level of a PKC activity in monocytes of the subject, thereby evaluating the
74 effect of the treatment.

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76 24. The method of claim 23, wherein the disorder is diabetes.

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78 25. The method of claim 23, wherein the disorder is a cardiovascular disorder.

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80 26. The method of claim 23, wherein the disorder is diabetes mellitus, Type I diabetes,
81 Type II diabetes, diabetic retinopathy, proliferative diabetic retinopathy, non-proliferative
82 diabetic retinopathy, diabetic nephropathy, microalbuminuria, proteinuria, renal failure,
83 hypertension, atherosclerosis, coronary artery spasm, congestive heart failure, coronary artery
84 disease, valvular disease, arrhythmias, or cardiomyopathy.

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86 27. The method of claim 23, wherein the PKC activity is PKC β activity.

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88 28. The method of claim 23, wherein the subject is a human.

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90 29. The method of claim 23, wherein the subject is an experimental animal.

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Subj 4
Cont.

92 30. A method of identifying a compound for the treatment of a PKC related disorder in a
93 subject, the method comprising:

94 administering a test compound for the treatment of the disorder to the subject; and
95 evaluating a PKC activity in monocytes of the subject,
96 the level of PKC activity being correlated with the effect of the treatment on the
97 disorder.

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99 31. The method of claim 30, wherein the disorder is diabetes.

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101 32. The method of claim 30, wherein the disorder is a cardiovascular disorder.

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103 33. The method of claim 30, wherein the PKC related disorder is diabetes mellitus, Type
104 I diabetes, Type II diabetes, diabetic retinopathy, proliferative diabetic retinopathy, non-
105 proliferative diabetic retinopathy, diabetic nephropathy, microalbuminuria, proteinuria, renal
106 failure, hypertension, atherosclerosis, coronary artery spasm, congestive heart failure, coronary
107 artery disease, valvular disease, arrhythmias, or cardiomyopathy.

108

109 34. The method of claim 30, wherein the PKC activity is PKC β activity.

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111 35. The method of claim 30, further comprising:

112 optionally identifying a subject in need of a treatment for the disorder;
113 optionally evaluating a PKC activity in monocytes of the subject; and
114 comparing the PKC activity before the administration of the test compound to the
115 PKC activity after administration of the test compound,
116 wherein a compound for the treatment of the disorder is identified when the PKC
117 activity after the administration of the compound is altered compared to a standard.

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119 36. The method of claim 30, wherein the subject is a human.

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121 37. The method of claim 30, wherein the subject is an experimental animal.

Sub A45
Cont.

123 38. A method of identifying a compound for the treatment of aging or an aging-related
124 disorder in a subject, the method comprising:

125 administering a test compound for the treatment of aging or an aging-related
126 disorder to the subject; and

evaluating a PKC activity in monocytes of the subject,
the level of PKC activity being correlated with the effect of the treatment on the
disorder.

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39. A method of evaluating the effect of a treatment for aging or an aging-related disorder on a subject comprising:

133 administering a treatment for aging or an aging-related disorder to a subject; and

evaluating the level of a PKC activity in monocytes of the subject, thereby evaluating the effect of the treatment.

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